Effects of short-term disability awareness training on attitudes of adolescent schoolboys toward persons with a disability

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Abstract

Background Schoolboys (N = 156, M age = 13 years) participated in a disability awareness training program that included guest speakers (athletes from the Paralympics and the Special Olympics), a documentary about people with a disability, a disability simulation activity, and factual information about different disabilities.

Method Participants were allocated to a training program or a control condition. Subsequently, control participants completed the training program. Attitudes toward disability were measured by the Chedoke–McMaster Attitudes Towards Children With Handicaps (CATCH) Scale and the scale from the “Just Like You” disability awareness intervention, before and after training.

Results Training improved attitude scores, and gains were retained at one-month follow-up.

Conclusions Disability awareness training that delivered relevant information by involving guest speakers with a disability, included documentary evidence about the lives of people with a disability, and included interactive discussion, was successful. CATCH and “Just Like You” are useful tools for measuring self-reported attitudes about disability.

Keywords: disability, adolescents, attitudes

Introduction

Inclusive education, whereby students with diverse abilities are included in the mainstream curriculum, can play an important role in challenging stereotypes about disability and help to generate long-lasting, positive attitudes among students so that a more inclusive society can be cultivated in the wider community, beyond time at school (Beckett, 2009; Booth & Ainscow, 2002; UNESCO, 1994). Inclusive education is not without its challenges, however, and negative peer attitudes have been widely acknowledged to reduce the extent to which students with a disability have been accepted within educational settings (Christensen, 1996; King et al., 2003; Martin, Jorgensen, & Klein, 1998). Moreover, several studies have reported that simply placing students with a disability within a school with an inclusive policy is not sufficient to foster positive attitudes among peers (McDougall, DeWit, King, Miller, & Killip, 2004; Rizvi & Lingard, 1996). Parents of children with a disability have frequently expressed concerns about the potentially negative side-effects of inclusion, like negative attitudes toward, and the social isolation of, children with a disability (Leyser & Kirk, 2004). How better to support children with a disability in an inclusive classroom setting therefore remains an important question for educators.

There is evidence that different types of disability may evoke varying degrees of negative attitudes. For example, people with an intellectual disability may elicit less favourable attitudes when compared with people with a physical disability (Furnham & Gibbs, 1984). Despite these trends, however, children without a disability have often been reported as tending to hold negative attitudes toward peers with a disability, regardless of the type (Maras & Brown, 2000; McDougall et al., 2004; Nowicki & Sandieson, 2002).

Wong (2008) focused on the attitudes of 13-year-old school students in Hong Kong toward peers
with a wide range of disabilities. She found that the individualistic and competitive environment of the classroom was not conducive to building positive attitudes toward students with a disability. She measured attitudes of 389 students at the beginning and end of the school year but found no significant differences between students where classrooms either included or did not include other students with a disability. However, she did report a small but statistically significant attitudinal improvement following an outside-of-the-classroom educational intervention. Additionally, students in the same study who participated in focus groups indicated that, although they were interested in working more with students with a disability, there were insufficient opportunities available within the classroom either for collaboration or peer tutoring.

Despite the complexities of inclusive education, it is apparent that programs that address negative attitudes toward people with a disability can have positive effects. Rillotta and Nettelbeck (2007) found that people who 8 years prior had completed approximately 7–8 hours of training directed to improving awareness of disability had retained positive attitudes toward people with an intellectual disability, at the same level as improvements registered by schoolchildren just completing similar programs involving about 6 hours of training. No improvement, however, was found for children completing only 3 hours of awareness training. Nonetheless, shorter terms of training can be effective. For instance, Ison et al. (2010) found significant short-term improvements in attitudes of students aged 9–11 years following 3 hours of disability awareness training with the “Just Like You” program (developed by the Cerebral Palsy Alliance of New South Wales, Australia, to focus on acceptance of children with cerebral palsy and a wide range of physical disabilities). Whether the effectiveness of the shorter training provided by Ison et al. reflected the focus on cerebral palsy, rather than intellectual disability, as targeted by Rillotta and Nettelbeck, is unknown. However, besides different kinds of disability, an additional notable difference between these two studies was that the “Just Like You” program involved co-presenters with a disability, whereas Rillotta and Nettelbeck’s program did not. There is other evidence that positive, structured exchanges directly involving people with a disability are effective when attempting to change attitudes (Lee & Rodda, 1994; Wong, 2008), raising the possibility that such interaction may be a significant element of successful intervention.

A study by Armstrong, Rosenbaum, and King (1987) involving 75 children aged 9–13 years investigated the use of a “buddy” program to change children’s attitudes toward peers with a disability. This program required once-weekly, non-academic contact involving cooperative gym-based activities and other games between each child with a physical disability and a peer without disability over a period of 3 months. Attitudes toward children with a disability improved among both the children without a disability and their parents. These results therefore contrast with those from studies that have found no significant attitude change following exposure to students with disability by integrating them into classrooms with children without a disability. In short, active engagement with appropriate training content rather than passive exposure is probably required if training is to be successful. Film/video appears to be a promising medium for actively engaging trainees. Schwartz et al. (2010) reported that the film Including Samuel, a 58-min documentary about the daily life of a boy with cerebral palsy, is an “effective pedagogical methodology … [for] generating discussion and changing attitudes about disabilities” (p. 841).

In a study involving seventy 15-year-old students, Krabé and Altwasser (2006) tested the effects of alternative interventions, each about 180-min duration, on attitudes toward people with a physical disability. Conditions were (a) cognitive intervention (information and discussion about interacting with people with a physical disability that challenged stereotypes), (b) combined cognitive–behavioural intervention (the same information, together with sporting activities under instruction of Paralympic athletes), and (c) a control condition. The control and cognitive interventions produced no improvement, but the combined cognitive–behavioural intervention improved attitudes immediately after the program and at 3-months follow-up.

For our study we used Triandis’s (1971) definition of an attitude as an “idea charged with emotion which predisposes a class of actions to a particular class of social situations” (1971, p. 2), which reflects theory that an attitude comprises three different components: cognitive, affective, and behavioural (Eagly & Chaiken, 1993; Nowicki & Sandieson, 2002; Triandis, 1971). Changing attitudes therefore requires procedures that address ideas (e.g., stereotypes), feelings, and what Triandis called the “predisposition to action” (1971, p. 3 e.g., behaviour to include or avoid a person with a disability). In the current study, students between about 12 and 15 years were targeted because attitudes toward others with a disability have tended to be more negative during early adolescence (King, Rosenbaum, Armstrong, & Milner, 1989). The aim was to design, implement, and measure the effects of a disability
awareness program (DAP) for secondary school students that included characteristics of the successful interventions described previously: active involvement with relevant information, video presentation, direct contact with people with a disability, and substantial out-of-classroom activities, including consideration of sporting accomplishments. It was hypothesised that completing the program would increase positive attitudes toward, awareness about, and knowledge of, people with a disability. A second hypothesis was that improved positive attitudes in the initial training group would be maintained one month after the DAP (the study design did not include follow-up of a delayed training group). Support for these hypotheses was accepted as a positive outcome because theory has suggested that increased favourable attitudes will lead to wider social inclusion and enriched quality of life for people with a disability (Ison et al., 2010).

Table 1. Distribution of students with a disability and learning difficulty within the sample

<table>
<thead>
<tr>
<th>Year of secondary school (mean age in years)</th>
<th>Class size</th>
<th>Number of students with a disability/difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>7–12.59</td>
<td>20</td>
<td>1 ASD</td>
</tr>
<tr>
<td>7–12.45</td>
<td>19</td>
<td>5 ASD, 1 dyslexia, 2 GLD, 1 SLD</td>
</tr>
<tr>
<td>8–13.46</td>
<td>15</td>
<td>5 2 dyslexia, 1 dysgraphia, 1 GLD, 1 SLD</td>
</tr>
<tr>
<td>8–13.46</td>
<td>21</td>
<td>1 GLD</td>
</tr>
<tr>
<td>7–12.59</td>
<td>21</td>
<td>4 1 dyslexia, 1 dysgraphia, 1 GLD, 1 APD</td>
</tr>
<tr>
<td>8–13.43</td>
<td>19</td>
<td>7 2 dyslexia, 3 GLD, 2 APD</td>
</tr>
<tr>
<td>8–13.55</td>
<td>22</td>
<td>4 1 CP, 1 ASD, 2 GLD</td>
</tr>
<tr>
<td>9–14.59</td>
<td>19</td>
<td>3 1 ID, 1 dyslexia, 1 GLD</td>
</tr>
</tbody>
</table>

Note. GLD = general learning difficulty; SLD = significant learning difficulty; ASD = autism spectrum disorder; APD = auditory processing disorder; CP = cerebral palsy; ID = intellectual disability.

Method

Participants and setting

Participants were 156 boys aged 11.6–15.2 years (M = 13.25, SD = 0.74) from a private (independent) all-boys school (kindergarten through Year 12) in metropolitan Adelaide, Australia, at which the first author was employed as a Student Support Officer working with students with a disability. However, the research was conducted outside of the duties and responsibilities relating to that position. School records categorised 30 of the participating students as having a disability or learning difficulty, as defined by school psychologists. These students had attended the school from 1–10 years (M = 6.4) and had access to learning support classes for numeracy, literacy, study skills, and social skills development three times a week. Only one student was formally classified as having an intellectual disability, but an additional 16 had a learning difficulty consistent with lower than average IQ. Other disabilities were specific learning difficulty (nine students), autism spectrum disorder (three students) and cerebral palsy (one student; see Table 1). School records confirmed that many of these students were performing academically at two or more years below grade level, and behavioural issues were noted as affecting the performance of a small number. Ethics approval was granted by the University of Adelaide’s Human Research Ethics Committee, in addition to approval from the school’s senior leadership. All students (N = 257) in Years 7, 8, and 9, with and without a disability, were initially invited to participate, but lesson constraints restricted the maximum possible to 169. All families received the same information package, and signed consent of parents was necessary for a student to participate. In addition, written informed consent was obtained from students 13 years and older. Consent was granted in 157 cases (93%), but a single participant’s data were subsequently removed because his attitude scores were in excess of three standard deviations below the mean, with written responses indicating that this child had failed to cooperate with instructions. Students were free to withdraw at any time but none did; no parent expressed any concerns about the purpose or conduct of the study.

Measures

Chedoke–McMaster Attitudes Towards Children With Handicaps Scale (CATCH; Rosenbaum, Armstrong, & King, 1986). CATCH measures participating students’ attitudes toward peers with a disability. The scale derives from Triandis’s (1971) model of attitudes and includes items intended to tap affective, behavioural, and cognitive domains. Affective items involve statements about feelings toward a person with a disability; for example, “I feel sorry for kids with disabilities.” Behavioural items assess intent to interact with a person with a disability; for example, “I would stick up for a kid with a disability who was being teased.” Cognitive items refer to beliefs about people with disability; for example, “Kids with disabilities don’t have much fun.” CATCH has 36 items, 12 for each of the affective, behavioural, and cognitive components, with an equal number of positively and negatively worded...
statements, each presented as a 5-point Likert scale (0: strongly disagree to 4: strongly agree). The original order of items, which mixes items from the three domains, was followed here. Negatively worded items are reverse-scored, and a higher final score indicates a more positive attitude toward people with a disability. Items are scored from 0 to 4, with the total score obtained by summing item scores, dividing by 36 and multiplying by 10, so that a final total score ranges from 0 to 40. The scale has been reported to have good test–retest reliability, internal consistency, and construct validity (McDougal et al., 2004; Rosenbaum et al., 1986; Vignes, Coley, Grandjean, Godiveau, & Arnaud, 2008). Standardised administration instructions obtained directly from Dr P. L. Rosenbaum (personal communication, March 26, 2011) were used in their entirety, except that minor revisions were made to the language to reflect changes in terminology over time (e.g., “handicapped children” was changed to “person, kid, or boy with a disability”).

"Just Like You” Scale (Ison et al., 2010). This measure was used with permission from the “Just Like You” program developed by Ison et al. (2010). The authors provided no information about reliability and validity. Four qualitative questions were omitted because these were more suited to younger children, leaving four true or false items followed by 10 items each rated on a 5-point Likert scale (strongly disagree to strongly agree) about attitude toward disability, knowledge of disability, and acceptance of people with a disability.

Disability awareness program (DAP)

Program overview. The intervention consisted of 4 weekly sessions, each 55-min duration, including 45 min of training activities, run during school time, but outside of core lessons, with between 45 and 85 students participating in each session. Each participant therefore received 3 hours of training overall. The DAP, delivered by the first author, consisted of a PowerPoint presentation and discussion of information about different kinds of disability and social inclusion, information about appropriate language when discussing disability; watching the documentary Including Samuel with discussion following viewing; contributions from guest speakers with a disability (a Special Olympics athlete with an intellectual disability, a Paralympics amputee athlete, and a Paralympian with cerebral palsy); a disability simulation activity; a video podcast from a legally blind person, and a short video clip featuring some of the middle and senior school students with learning disabilities.

Including Samuel documentary. This US documentary (Habib, Habib, Barnes, & Murphy, 2009) was shortened and subdivided into four 15-min segments to focus on Samuel, a fifth grade boy with cerebral palsy who uses a wheelchair and assistive communication technology; Keith, an African-American disability rights activist who also has cerebral palsy; Alana, a teen with behavioural problems and possible intellectual disability; and Nathaniel, a younger student with autism. These segments were dispersed throughout the DAP. After viewing each section, students split into groups led by teachers for discussion of specific questions selected from Habib, Jorgensen, and Schuh (2009) and framed to correspond to the film as viewed

Procedure

The study design involved pre- and post-repeated measures using a pencil and paper questionnaire that included age data, whether the respondent had a friend with a disability, if any family member had a disability, and the CATCH and “Just Like You” scales, in that order. Instructions presented by PowerPoint were designed to minimise error, with items read aloud at each data collection point by the first author because some students were known to have moderate to severe dyslexia. The questionnaire took approximately 20 min to complete. Children attended DAP sessions delivered within eight “pastoral care” time-slots, each of which included children with a disability. The configuration of these subgroups is shown in Table 1. The first four subgroups in the Table were combined (n = 75) and designated at the outset as the “program” group, to attend DAP training during the 4 weekly sessions, following baseline measurement of attitudes toward people with a disability. The remaining four subgroups (n = 81) served initially as “controls” by attending pastoral care classes scheduled at the same times. The control participants subsequently became a delayed treatment group; that is, the design was flipped so that these students completed the same DAP training while the previous program participants attended pastoral care classes instead of further training. There were three points at which attitudes were measured at group sessions using the two scales in the questionnaire, as previously described: at Time 1 (baseline), prior to any intervention, at Time 2, following DAP training for the four program subgroups, and at Time 3, following the same DAP training for the four control subgroups

Following the first occasion, control participants returned to pastoral care classes and program students completed the first training session. Following
Results

Reliability of the attitude scales

CATCH was confirmed to have high internal consistency ($\alpha = .93$) and high test–retest reliability (control group, between first and second occasion, $r = .77$, $df = 69$, $p < .001$). The “Just Like You” scale also had satisfactory internal consistency ($\alpha = .70$) and retest reliability ($r = .59$, $df = 65$, $p < .001$). Correlation ($r = .65$, $df = 143$, $p < .001$) between CATCH and “Just Like You” scores suggested substantial overlap between the scales, serving to provide cross-validation of both scales.

Factor analyses of CATCH and “Just Like You” scales

Exploratory factor analysis of CATCH failed to confirm three theoretical attitude dimensions: cognitive, affective, behavioural. Following an initial principal component analysis and removal of three items for unacceptably low intercorrelations (Kaiser-Meyer-Olkin [KMO] index < .5), principal axis factoring was performed using oblique rotation (oblimin). The KMO index was .90 verifying sampling adequacy (all KMO values > .71), with Bartlett’s test of sphericity, $\chi^2(528) = 2341.96$, $p < .001$, indicating that correlation between items was sufficiently large for principal axis factoring. Two factors that accounted for 37.73% of the cumulative shared variance (near-identical percentage as reported by the scale’s authors) were extracted based on the scree plot’s point of inflexion. Factor 1, explaining 34.18% of variance, represented a combination of behavioural and affective components of attitudes, and Factor 2 (3.55%) represented the cognitive component. Following the same procedures with the “Just Like You” scale, after dropping two items for low intercorrelations, KMO was .79, with Bartlett’s test of sphericity, $\chi^2(66) = 290.86$, $p < .001$, confirming that principal axis factoring was appropriate. The scree plot indicated 2–3 factors, but only two items loaded on the third factor and a two-factor solution was therefore adopted. The first factor accounted for 22.42% of variance and represented a combination of attitudes and acceptance about people with a disability; Factor 2 (4.80%) represented knowledge. However, because of high correlation between these two factors ($r = .65$, $df = 143$, $p < .001$) a single factor solution appeared plausible. Overall, these results suggested that the total scores from these two scales provided the most reliable measures of attitudes toward people with a disability.

Intervention effects

Hypotheses 1 and 2, that participation in the DAP would positively increase attitudes toward people with a disability and that improved attitudes within initial intervention subgroups would be maintained for one month following DAP training, were tested for the CATCH and “Just Like You” scales separately using a general mixed models analysis, where subgroup (as described in Table 1) was introduced as a random effect, and the three data collection points and the two groups (program and control) were fixed effects. This model accommodates uneven numbers of cases across different measurement points and takes account of correlations among repeated measures (SPSS, 2005).

Mean CATCH scores for program and control groups at the three time points are shown in Table 2. As anticipated, there was substantial correlation among CATCH scores across time (covariance parameter AR1 $\rho = .74$) but, with covariance modelled for attitude scores, an overall statistically significant result representing improved attitudes toward people with a disability was confirmed. To summarise, the program group improved more than the control group following intervention, maintaining this improvement between the measures of attitude at Times 2 and 3; the control group improved markedly following their intervention before Time 3. Consistent with this, the main effect for groups was not

<table>
<thead>
<tr>
<th>Time</th>
<th>Program</th>
<th>Control</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>$M$ ($SD$)</td>
<td>$n$</td>
</tr>
<tr>
<td>1</td>
<td>27.25 (4.26)</td>
<td>74</td>
</tr>
<tr>
<td>2</td>
<td>29.37 (4.36)</td>
<td>61</td>
</tr>
<tr>
<td>3</td>
<td>28.83 (4.76)</td>
<td>68</td>
</tr>
</tbody>
</table>

Note. Different $n$ values reflect absences or some students exiting during training sessions because of other curricula commitments.
significant \((F < 1.0)\), but the main effect for time was significant, \(F(2, 249.7)^{2} = 17.78, p < .001\); and, most important, there was a highly significant interaction, \(F(2, 249.7) = 5.98, p = .003\), because both groups only improved following intervention. Effect sizes for the program group at Times 2 and 3 and the controls at Time 3, all compared with Time 1, were moderately strong \((r = .47, .33, .51,\) respectively). This result was achieved despite the inclusion of several students whose attitudes toward people with a disability would be expected to be high from the outset; that is, students with a disability \((n = 30)\), students reporting having a friend with a disability \((n = 73)\), and students reporting having a family member with a disability \((n = 34)\). Unsurprisingly, the initial attitudes of these students toward people with a disability were significantly more favourable than those of their fellow students without a disability, \(M = 29.47, SD = 3.36\) cf. \(M = 26.86, SD = 4.73, t(134) = 2.07, p < .005, r = .18; M = 28.76, SD = 4.10\) cf. \(M = 24.41, SD = 4.80, t(125) = 5.30, p < .001, r = .43; M = 29.26, SD = 3.62\) cf. \(M = 26.60, SD = 4.03, t(64.04) = 3.50, p < .001, r = .40\), respectively.

This effect was mirrored in the “Just Like You” scores (see Table 2), with high correlation among scores across time (covariance parameter \(AR1\rho = .65\)). However, as before, with covariance modelled, there was clear evidence of improved attitudes toward people with a disability. Thus, the program group improved following intervention, maintaining this improvement over time, whereas the control group did not. However, the control group improved markedly following their intervention. As would be expected, therefore, the main group effect was not significant \((F < 1.0)\), but the main effect for time was significant, \(F(2, 243.8) = 8.97, p < .001\); and, most important, there was a highly significant interaction term, \(F(2, 243.8) = 6.00, p = .003\). As before, this was the consequence of improvement in the program group following intervention between Times 1 and 2, with maintenance at Time 3, and improvement in the control group following intervention between Times 2 and 3. Effect sizes for the program group at Times 2 and 3 and the controls at Time 3 were moderately strong \((r = .41, .26, .49,\) respectively). Again, this result was obtained despite including students with a disability, students reporting having a friend with a disability, and students reporting having a family member with a disability. Initial attitudes of students with a disability were somewhat more favourable \((M = 34.53, SD = 3.34)\) than those of students without a disability \((M = 32.67, SD = 4.80)\), although this difference was not reliable, \(t(134) = 1.46, p > .05, r = .18\). However, attitudes were statistically significantly more favourable from the outset if friends were reported, \(M = 34.14, SD = 4.14\) cf. not reported \(M = 31.30, SD = 4.53, t(124) = 3.62, p = .000, r = .31\), and where the respondent had a family member with a disability, \(M = 34.41, SD = 3.26\) cf. no family member \(M = 32.40, SD = 4.84, t(adjusted) = 87.61 = 2.77, p < .01, r = .27\).

**Where attitude changes occurred**

The extent to which CATCH items registered improved attitudes following intervention was examined by calculating the mean change to rating at Time 1 and Time 3 for each item. Unsurprisingly, improvement was most marked for items with lowest scores at baseline \((r = .86, df = 34, p < .001)\). There was no evidence that improvement was linked to any particular aspect of the scale, with the cognitive, affective, and behavioural domains as defined by Rosenbaum et al. (1986) evenly distributed across the full range of change scores. Subjectively, those items registering most improvement appeared to tap awareness that paternalism is uncalled for \((e.g., “I feel sorry for kids with disabilities” [reverse scored]), learning about self-sufficiency \((e.g., “Kids with disabilities can do lots of things for themselves”) and inclusion \((e.g., “I would like having a kid with a disability as a next door neighbour”).

**Feedback from boys with a disability**

At the study’s conclusion, 16 of the boys with a disability volunteered feedback about how useful they perceived the program to have been. Comments were generally favourable, although, unsurprisingly, 10 of these boys considered that participation in the program had not changed how they thought about people with a disability. For the remainder who did, their comments reflected heightened awareness that bullying is unacceptable. Thirteen of the boys commented favourably about the inclusion of the guest speakers, and 13 considered that they had learned something additional about having a disability, beyond their personal experiences.

**Discussion**

We evaluated the efficacy of a 3-hour DAP for boys in the middle years of secondary education. A strength of the study was the pre–post design with repeated measures, which included a control group with repeated measures and delayed intervention for control participants, and which also allowed testing for maintenance of attitudes in the initial program.
group. Results confirmed that participation in a DAP that aimed to deliver relevant information by involving guest speakers with a disability, including documentary evidence about the lives of people with disability and opportunity for interactive discussion, leads to attitude improvement. Participants reported enjoying the Including Samuel documentary and were highly participatory in discussion linked to this film. However, the training package was presented as a single entity, and we did not attempt to evaluate the relative effectiveness of the individual components of the intervention program. Future research to explore the qualitative and quantitative value of including training materials of this kind is warranted.

The extent of average improvement was about 2–3 points on each of two scales involving 36 and 14 items, respectively, a moderately large effect size, and this was maintained in the program group for the duration of the study, which ran one month beyond the intervention with this group in order to permit intervention with control participants. This is a promising outcome; overall attitudes toward disability at this school were generally fairly favourable from the outset, but the final levels expressed were directly comparable with those of the subgroup of boys who had a disability and whose opinions therefore might be expected to set an optimal outcome. Moreover, comments from those boys with a disability who did provide subsequent feedback about the program were universally positive. However, although it is generally assumed that improved behaviour will follow improved attitudes, further research on the behavioural effects after participation in disability awareness training is obviously needed. Had it been possible to arrange beforehand, a prospective survey of all potential participants in our study and all children with a disability about their social experiences at the school, with follow-up many months after completion of the study, would have provided opportunity to test further the ecological validity of current results.

There is also a question about the extent to which Likert ratings are sensitive when registering change. The opinions of participants with a disability consistently coincided with average scores of only 30 from 40 (CATCH) and 35 from 50 (“Just Like You”), the levels achieved by participants without a disability following intervention. These results suggest “ceiling” scores on these scales, consistent with an observed tendency to midpoint responding and a reluctance to use the strongest favourable rating (Hodge & Gillespie, 2003). Notwithstanding any such tendency, consistent with previous work (Ison et al., 2010; Krahé & Altwasser, 2006), the current study has demonstrated that a 3-hour intervention program can significantly improve attitudes.

Current results have confirmed that the CATCH scale is a reliable, valid tool for measuring self-reported attitudes about disability, and we recommend it in preference to the single-use questionnaires that abound in this area of research. The scale might be improved, however, by further attention to items that lack internal consistency or have poor discrimination, and by extending the range of response options to avoid a midpoint. Moreover, whether the factor structure is better described in terms of two or three factors could be usefully reconsidered because revision to the claim that there are 12 items representing each of three components may be necessary. Although research with this scale has generally assumed a three-factor structure, Rosenbaum et al. (1986) did consider from the outset that a “factor analysis of the questionnaire suggests a two-component model may be more appropriate” (p. 528), and our results have supported this possibility.

The “Just Like You” questionnaire proved to be a useful tool. Test–retest reliability and internal consistency, which have previously not been reported for this measure, were found to be acceptable. Although factor analysis suggested that two factors remain possible, in its present form the scale is probably best regarded as measuring one overall factor. Including this scale did reveal good cross-validation with the CATCH scale.

The sample here was limited to boys, and results may therefore be limited when extrapolating to a school population containing both genders. However, boys tend to have more negative attitudes toward people with a disability than girls (Cowardin, 1986; Fisher, Pumpian, & Sax, 1998; King et al., 1989; Kishi & Meyer, 1994; McDougall et al., 2004, Nowicki & Sandieson, 2002; Rosenbaum et al., 1986; Vignes et al., 2009). Moreover, gender differences in attitudes appear to remain stable across the lifespan; mothers rate children with a disability significantly more favourably than fathers do (Rosenbaum, Armstrong, & King, 1987). Thus, running a DAP with an all-male sample is certainly justifiable. Also, we know of no studies in which girls’ attitudes have changed in a manner that differentiated them from their male counterparts when exposed to or participating in disability awareness training. In short, therefore, we predict that the DAP described here would be equally effective with female participants.

Acknowledgements

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Notes

1. “Boy” reflects the fact that the school was single sex.
2. Details available from the authors.
3. Discussion questions are available from the authors.
4. For ease of description, the designations “program group” and “control group” are used throughout, despite the fact that participants in both groups eventually undertook DAP training.
5. Noninteger degrees of freedom reflect violation of assumption of homogeneity of variances, as identified by Levene’s test.

Declaration of interest: The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

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